ABSTRACT

To provide an oscillator device and a transmission and reception device that are usable for implementing high output and wide-band modulation and that can reduce the manufacturing cost.

An oscillation circuit 2 and a frequency control circuit 15 including microstrip lines 5 and 16, respectively, and other components are formed on an oscillation circuit substrate 1. A TM010 mode resonator 23 including resonator electrodes 23A and 23B are formed on a dielectric substrate 22 and excitation electrodes 24 and 25 are also formed on the dielectric substrate 22 to form a dielectric resonator chip 21. Then, the resonator electrode 23B is fixed to a land 19 of the oscillation circuit substrate 1 by using bumps 26, and also, the excitation electrodes 24 and 25 are fixed to the microstrip lines 5 and 16, respectively, by using bumps 26. With this configuration, the TM010 mode resonator 23 can be excited by using the excitation electrodes 24 and 25, and also, the dielectric resonator chip 21 can be miniaturized and the manufacturing cost can be decreased accordingly.